

## **REMARKS**

In the Official Action mailed on **1 June 2007**, the Examiner reviewed claims 1-39. The abstract was objected to. Claims 19 and 36 were objected to. Claims 6, 15, 24, 31, 35, and 39 were rejected under 35 U.S.C. § 112. Claims 10-27 and 32-39 were rejected under 35 U.S.C. § 101. Claims 1-4, 6, 7, 10-13, 15, 16, 19-22, 24, 25, and 28 were rejected under 35 U.S.C. § 102(b) based on Kwong et al. (USPN 6,289,506 hereinafter "Kwong"). Claims 8, 17, and 26 were rejected under 35 U.S.C. § 103(a) based on Kwong, and Kilis (USPN 5,491,821 hereinafter "Kilis"). Claims 9, 18, and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwong, and Evans et al. (USPN 5,805,899 hereinafter "Evans").

### **Objection to the Abstract of the Disclosure**

Examiner objected to the abstract of the disclosure because it exceeds 150 words in length. Applicant has amended the abstract to comply with the length requirements specified in MPEP 608.01(b), and respectfully submits that this overcome the objection to the abstract.

### **Claim Objections**

Examiner objected to claims 19 and 36. Applicant has cancelled claims 19 and 36, rendering this objection moot.

### **Rejections under 35 U.S.C § 112**

Examiner rejected claims 6, 15, 31, and 35 as being indefinite for using the terms JAVA, JVM, and JNI. Applicant has replaced the term "JVM" with the term, "a platform-independent virtual machine," and the term "JNI" with the term,

“an interface for accessing native code.” These amendments find support in paragraphs [0002]-[0003] of the instant application. Applicant respectfully submits that these replacements render the claims definite, and overcome the rejections under 35 U.S.C § 112.

#### **Rejection under 35 U.S.C. § 101**

Claims 10-18 and 32-35 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicant has amended the specification to disavow the subject matter of the previously removed language directed to computer transmission medium.

Claims 19-27 and 36-39 were rejected as being non-statutory. Applicant has cancelled claims 19-27 and 36-39.

#### **Rejections under 35 U.S.C. § 102(b)**

Claims 1-4, 6, 7, 10-13, 15, 16, 28-29, 31, and 32-25 were rejected under 35 U.S.C. § 102(b) based on Kwong. Applicant respectfully disagrees. Applicant points out that Kwong is fundamentally distinct from embodiments of the present invention. More specifically, Applicant avers that nothing in Kwong discloses using intermediate representations to optimize Java program methods.

In the Kwong system, a programmer first writes a computer program in the Java programming language (see Kwong, col. 8 and FIG. 7). The program is compiled and tested/debugged. Then selected Java program methods are **optimized and then compiled into native processor code** by a native Java compiler. Alternatively, a user may decide to de-compile earlier native compiled code back to bytecode format. The de-compile process may be used when a user determines that the native compiled code does not present the desired

performance and the user wants to revert the native compiled code back to Java bytecode (see Kwong, col. 8 and FIG. 7).

In contrast, embodiments of the present invention: (1) obtain an intermediate representation (IR) for the application program; (2) obtain an intermediate representation for selected native code methods; (3) **combine both intermediate representations**; and (4) generate native code from this combined IR while **performing optimization on this combined IR** (see instant application, paragraphs [0028]-[0032]). The combined IR provides additional information to the optimization process that would be impossible to determine using native code from either representation alone. Thus, the optimization process is improved by combining the IR for the application program and the native code.

There is nothing in Kwong, either explicit or implicit, that discloses generating intermediate representations for both the application program as well as the native code methods, **combining both the intermediate representations, and performing an optimization on this combined intermediate representation**. Hence, it is not possible to use the system of Kwong to improve the optimization process by using additional information from the combined IR using both the application program IR as well as the native code IR.

Hence, Applicant respectfully submits that independent claims 1, 10, 28, and 32 are in condition for allowance. Applicant also submits that claims 2-9, which depend upon claim 1, claims 11-18, which depend on claim 10, claims 29-31, which depend on claim 28, and claims 33-35, which depend on claim 32, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

### **CONCLUSION**

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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